

# ACID GAS REMOVAL

“ Effective elimination of acid gases through advanced activated carbon filtration ”

Unpleasant odors caused by acid gas removal processes, such as hydrogen sulfide removal (H<sub>2</sub>S) and sulfur dioxide removal (SO<sub>2</sub>), commonly occur in sewage treatment plants. These gases must be effectively treated using gas phase filtration before being released into the environment to mitigate risks to human health and ecosystems. Haycarb solutions are specifically designed for activated carbon filtration which plays a crucial role in trapping and neutralizing these pollutants, ensuring cleaner air quality in industrial settings.

Haycarb’s activated carbon applications are specifically engineered for acid gas removal, offering a highly effective solution for mitigating odors in areas such as pumping stations, primary clarifiers, and filter press rooms within sewage treatment plants. Our impregnated activated carbon products are developed using a proprietary process that incorporates chemical impregnations such as KI, KOH, NaOH, Na<sub>2</sub>CO<sub>3</sub>, NaHCO<sub>3</sub>, CuO, MgO, ZnO, and K<sub>2</sub>CO<sub>3</sub>. Additionally, specially formulated non-impregnated activated carbon solutions are also available for high-humidity conditions, ensuring optimal performance in industrial environments.

Additionally, our specialized products help prevent bed fires caused by heat released during chemisorption, ensuring operational safety and efficiency.



## TECHNICAL INFORMATION

Parameter	Value	Test methods
Iodine No. (mg/g) *	1000-1400	ASTM D4607
Apparent density (g/cc)	>0.40	ASTM D2854
Moisture content % (w/w) *	<15	ASTM D2867
Impregnation level % (w/w) *	<20	Mass balance
H <sub>2</sub> S adsorption capacity % (w/w) **	min 75	ASTM D6646
SO <sub>2</sub> adsorption capacity % (w/w) **	<15	Gas adsorption test
ASTM particle size ***	4x8, 6x12, 8x16, 12x20	ASTM D2862

\* Products can be customized for specific requirements.

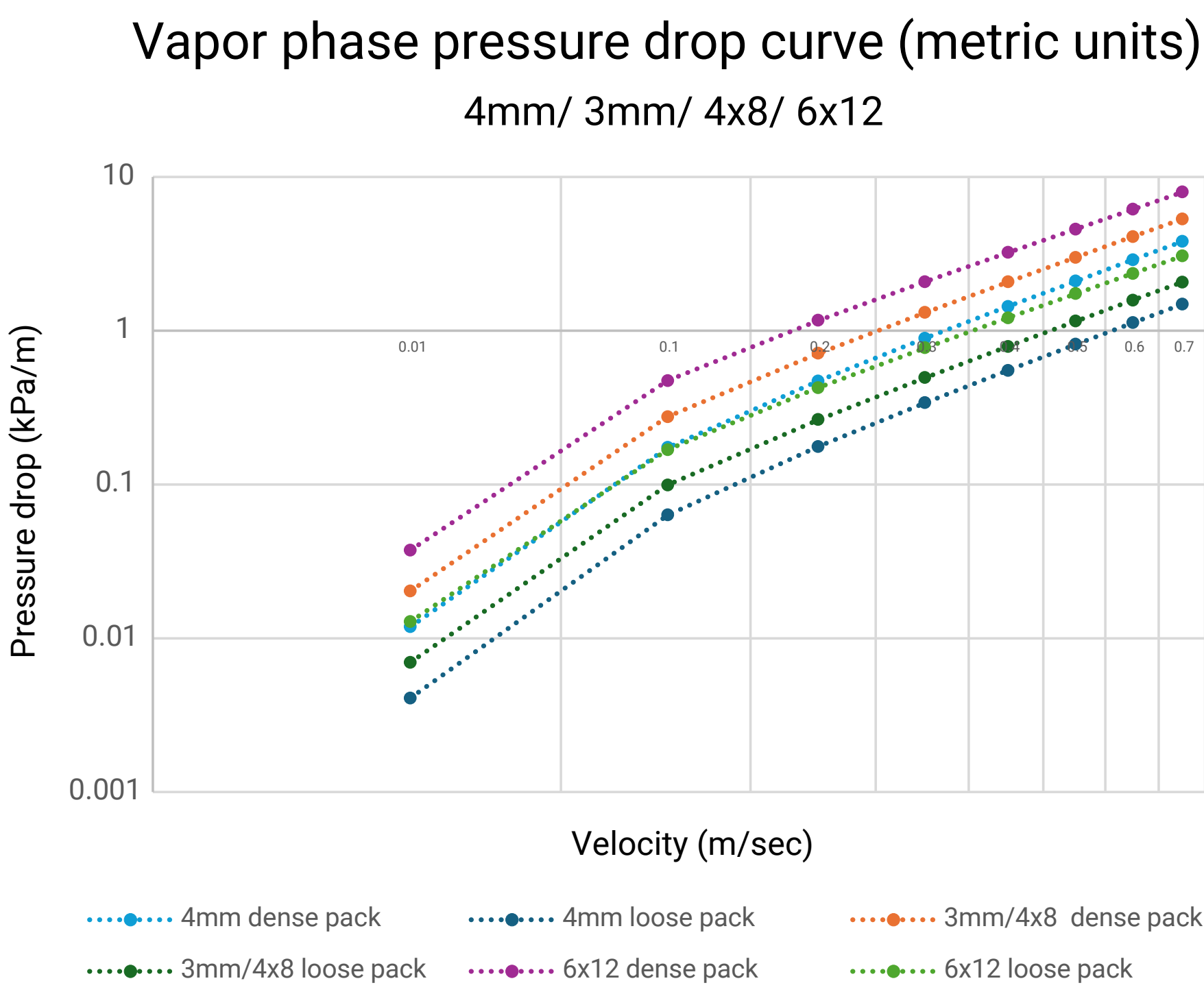
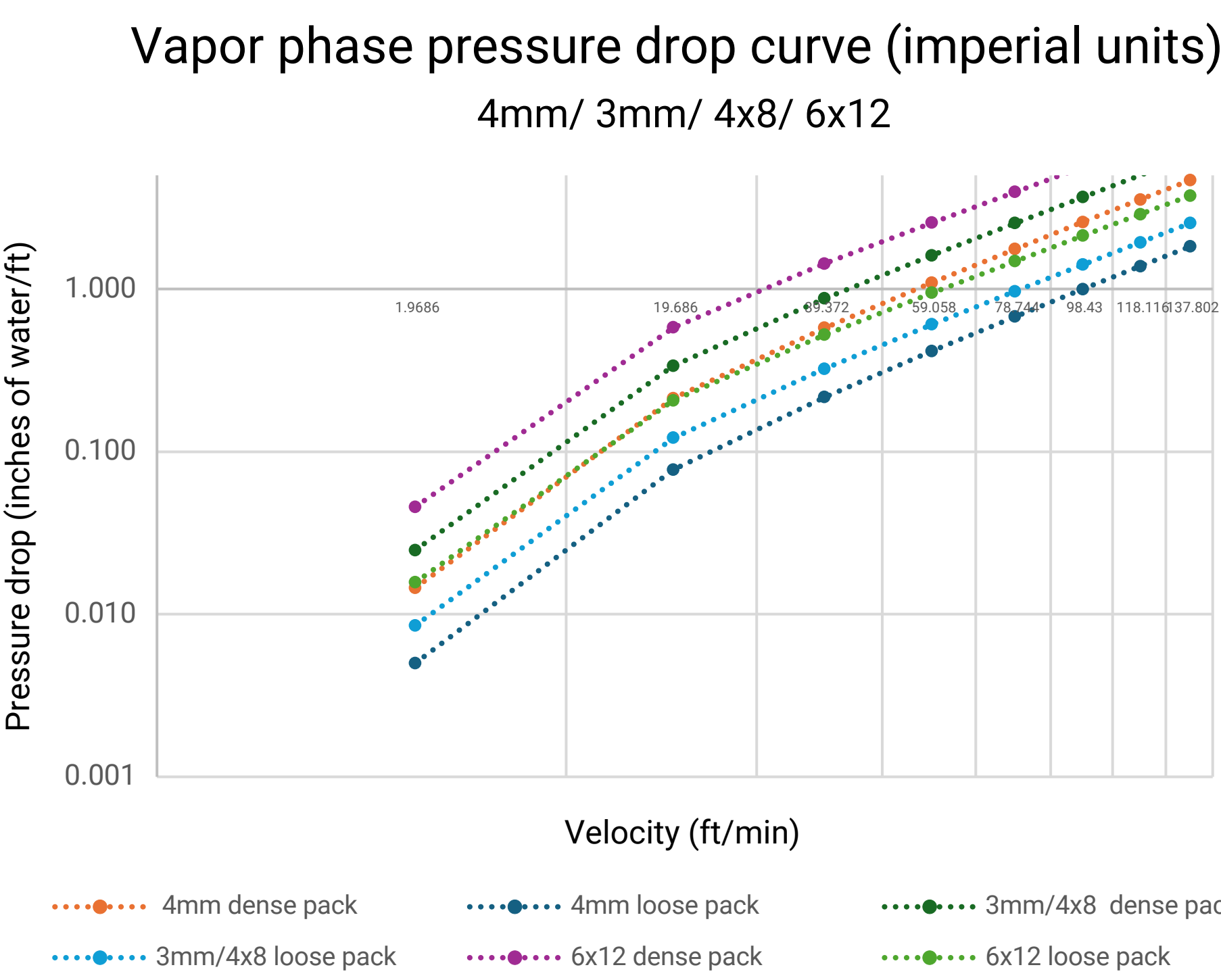
\*\* Performance data is based on laboratory testing and may differ in real-world process conditions. Specialized impregnated products are capable of removing gases such as chlorine (Cl<sub>2</sub>), hydrogen cyanide (HCN), hydrogen halide and more.

\*\*\* We offer products with various particle size distributions and can provide pelletized options tailored to specific customer requirements.





TYPICAL PRESSURE DROP CURVE



BENEFITS

- High capacity for H<sub>2</sub>S & SO<sub>2</sub> removal
- Effective removal of chlorine (Cl<sub>2</sub>), hydrogen cyanide (HCN), and hydrogen halide gases
- Removal of organic vapors
- Exceptional hardness and strength
- Superior adsorption capacity
- Optimized acid gas removal capacity across various process conditions
- Significantly lower ash content compared to coal and peat-based activated carbon
- A wide range of carbon products designed for process conditions, offering cost advantages

APPLICATIONS

- Sewage air purification
- Clean rooms and control rooms
- Libraries and museums
- Filtration in laboratory fume hoods
- Waste gas removal in packaging manufacturing
- Use in cartridge respirators
- Filtration for cabin air systems
- Biogas treatment
- Oil and gas industry: acid gas removal in amine plants (used to eliminate H<sub>2</sub>S from natural gas streams)

**PACKAGING:** Standard packaging is primarily designed to prevent the deterioration of accurately graded granules and to prevent the adsorption of moisture or atmospheric contaminants. Other packaging criteria can be accommodated upon request.

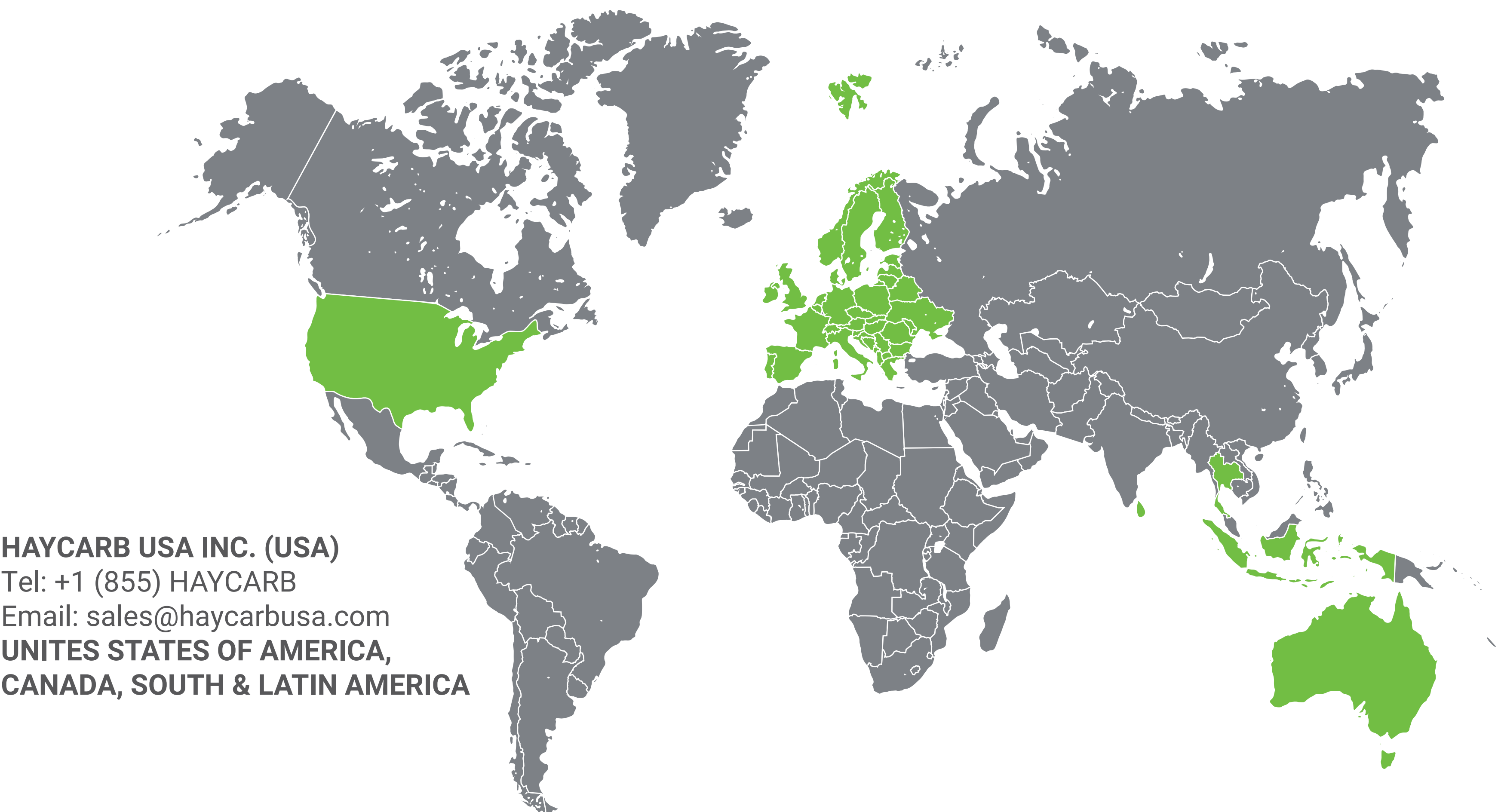
**BULK BAG**  
Net. 500 kg

**SACKS**  
Net. 25 kg



'ACTIVATE' Haycarb's  
ESG roadmap 2030

CONTACT US



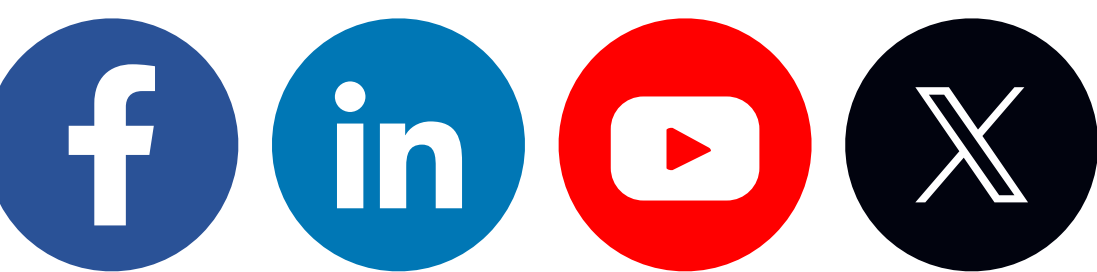
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